

REMARKS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 28-37 are presently active in this case. The present Amendment adds new Claims 28-37 without introducing any new matter; and cancels Claims 1-27 without prejudice or disclaimer.

The outstanding Office Action rejected Claims 10-23 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Claims 3, 9, 11-23 and 25-27 were rejected under 35 U.S.C. § 112, second paragraph, as indefinite. Claims 1-17, 22-24, and 26 were rejected under 35 U.S.C. § 102(b) as being anticipated by Mitani et al. (U.S. Patent No. 6,052,200, hereinafter “Mitani”). Claims 18-21, 25 and 27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Mitani and further in view of Shimizu et al. (U.S. Patent No. 6,052,202, hereinafter “Shimizu”).

In response to the rejection of Applicants’ Claims 10-23 under 35 U.S.C. § 112, first paragraph, the rejection of Claims 3, 9, 11-23, and 25-27 under 35 U.S.C. § 112, second paragraph, and to better comply with U.S. claim drafting practice, new Claims 28-37 are presented. Consequently, Claims 1-27 are cancelled without prejudice or disclaimer.

New Claims 28-37 find non-limiting support in Applicants’ disclosure as originally filed. For example, the image conversion unit of independent Claim 28 finds non-limiting support in Applicants’ disclosure as originally filed, for example in the specification at p. 19, ll. 16-32 and in Fig. 1, element 44, “media edit unit.” The hardware image processing unit of Claim 28 finds support in the specification at p. 23, ll. 3-14, and in Fig. 1, element 45. Claim 29 finds non-limiting support with reference to Fig. 4 and in Applicants’ specification starting at p. 24, l. 20. Claim 30 finds non-limiting support in at least Fig. 3, and in the specification starting at p. 23, l. 3. Claim 31 finds non-limiting support starting at least at p. 26, l. 11.

Claim 32 finds non-limiting support in Fig. 21, and in the specification starting at p. 39, l 15.

Claim 33 finds non-limiting support in at least Applicants' Fig. 21 and 23. In light of the above, Applicants respectfully submit that the new claims do not raise any issues on new matter.

New Claims 34-37 are directed to a different statutory class, but recite similar features as new Claims 28-33. No new matter has been added.

In response to the rejections of Claims 1-27 under 35 U.S.C. §§ 102(b) and 103(a), Applicants respectfully request reconsideration of these rejections and traverse the rejections, as discussed next.

Briefly recapitulating, Applicants' Claim 28 relates to an image forming apparatus configured to be connected to a plurality of hardware resources by a system bus. The image forming apparatus includes, *inter alia*, an image conversion unit configured to process image data by software with a first conversion function to convert an image into a different format, and ***configured to access and to send the image data to a hardware image processing unit over the system bus that is configured to process the image data by hardware with at least one second hardware conversion function***; wherein the image conversion unit is further configured to access a register of the hardware image processing unit over the system bus ***to determine which ones of the at least one second hardware conversion functions are available for conversion of the image data***.

Turning now to the applied references, Mitani describes a memory management method that holds a memory capacity down, to prevent printing overrun by memory deadlock. (Mitani, Abstract, col. 1, ll. 46-50.) In Mitani's method, the memory size required for printing data is calculated, and after a data conversion is performed, the data size of the converted printing data in the memory is verified. (Mitani, col. 1, ll. 53-64.) Mitani thereby selects different compression rates of when performing image data conversion as a function

of the available memory space. (Mitani, col. 15, ll. 23-48.) However, Mitani fails to teach all the features of Applicants' Claim 28. In particular, Mitani fails to teach

an image conversion unit . . . configured to access and to send the image data to a hardware image processing unit over the system bus that is configured to process the image data by hardware with at least one second hardware conversion function, . . . wherein the image conversion unit is further configured to access a register of the hardware image processing unit over the system bus to determine which ones of the at least one second hardware conversion functions are available for conversion of the image data.

(Claim 28, portions omitted, emphasis added.) Nowhere in the cited passages of Mitani there is a teaching related to an image conversion unit that accesses a register to determine availability of second hardware conversion functions.

The applied reference Shimizu, used by the pending Office Action to form a 35 U.S.C. § 103(a) rejection, fails to remedy the deficiencies of Mitani, even if we assume that such a combination is proper. Shimizu is directed to a printer that can calculate an available memory capacity when receiving data from a computer to be printed. (Shimizu, col. 1, ll. 9-17, col. 2, ll. 36-42, ll. 59-62.) Shimizu explains that the memory resource that can be allocated to a print job may be varied in dependence of the type of document or size of document to be printed. (Shimizu, col. 7, ll. 29-42, Fig. 3.) However, the cited passages of Shimizu do not teach anything related to Applicants' Claim 28 image conversion unit. Again the cited passages of Shimizu at least fail to teach an image conversion unit that accesses a register to determine availability of second hardware conversion functions.

Therefore, even if the combination of Mitani and Shimizu is assumed to be proper, the cited passages of the combination fails to teach every element of Applicants' independent Claim 81. Accordingly, Applicants respectfully traverse, and request reconsideration of, the rejections under 35 U.S.C. §§ 102(b) and 103(a) based on these references.¹

¹ See MPEP 2142 stating, as one of the three "basic criteria [that] must be met" in order to establish a *prima*

Applicants also respectfully submit that both Mitani and Shimizu, taken in any proper combination, fail to teach all the features of Applicants' dependent claims. For example, dependent Claim 31 requires that the image data management unit is configured to acquire a memory area corresponding *to an availability of the different types of at least one second hardware conversion functions*, upon a request for image data conversion from an external device.

In Mitani, the image compression strength is adapted as a function of available memory space, and Shimizu reserves memory area as a function of different types of print jobs, as discussed above. Therefore, none of the cited passages of both Mitani and Shimizu teach the acquisition of memory area corresponding *to an availability of the different types of at least one second hardware conversion functions*, as required by dependent Claim 31.

New Claims 34-37 are directed to a different statutory class, but recite some features that are analogous to the features of Claims 28-33. Accordingly, for the reasons stated above for the patentability of Claims 28 and 31, Applicants respectfully submit that Claims 34-37 are also believed to be allowable.

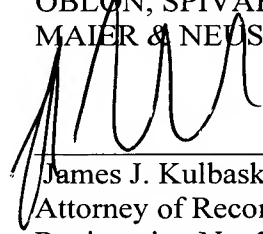
Consequently, in view of the present Amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 28-37 is earnestly solicited.

facie case of obviousness, that "the prior art reference (or references when combined) must teach or suggest all the claim limitations," (emphasis added). See also MPEP 2143.03: "All words in a claim must be considered in judging the patentability of that claim against the prior art."

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representative at the below listed telephone number.

Respectfully submitted,

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